

## Remarks

In the Office Action, claims 1-81 were pending with claims 4, 5, 12-61, 63-65 and 67-81 being withdrawn from consideration and claims 1-3, 6-11, 62, and 66 ("pending claims") being rejected.

By this amendment, Applicant has canceled claims 1-81 for convenience purposes only. Applicant presents herein new claims 82 – 129, wherein claims 82, 103, and 120 are independent claims. Due to the anticipated extensive amendments to the pending claims, Applicant believed that such extensive amendments would make the pending claims difficult to read. Thus, Applicant opted to cancel the pending claims and provide such new claims.

The pending claims were all drawn to a previously elected single species wherein the three independent pending claims (claims 1, 62 and 66) were directed to an optical module having, at a minimum, a "transparent material," a "source of optical radiation," and "detectors." In keeping with that species, Applicant has provided three new independent claims wherein new independent claim 82 has three similar elements as pending claim 1, and new independent claims 103 and 120 have the same three similar elements plus additional narrowing elements. Thus, the three new independent claims are directed to the previously elected species, but varying in scope.

In addition to the new independent claims, Applicant has submitted herewith dependent claims 83-102, 104-119, and 121-129. Applicant believes that all of these new claims 82-129 do not introduce new matter, but rather claim the elected species of the present invention in varying scope. Review and reconsideration of the application and the new claims are respectfully requested.

### A. *Claim objections and rejection under 35 U.S.C. § 112, second paragraph*

The Examiner objected to claim 1 for a minor informality. Likewise, the Examiner rejected claim 62 under 35 U.S.C. §112, second paragraph as being indefinite.

In response, Applicant has canceled claims 1 and 62, replacing these independent claims with new independent claims 82, 103, and 120. Thus, Applicant respectfully contends that it has rendered the Examiner's objection to and rejection of claims 1 and 62, respectively, moot.

**B. Rejection under 35 U.S.C. § 102(b)**

**1. Claims 1-3, 6, 11 and 66**

The Examiner rejected claims 1-3, 6, 11, and 66 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 5,446, 290 to Fujieda, et al. ("the '290 Fujieda"). In particular, the Examiner contends that the '290 Fujieda discloses an optical module having a transparent material, a source of optical radiation, and detectors that generate electrical signals in response to the detected radiation (or light).

In response, Applicant has canceled all pending claims and has replaced them with new claims 82-129. Accordingly, Applicant responds to the Examiner's rejection as applied to these new claims.

**Regarding new independent claim 82,** Applicant respectfully asserts that the '290 Fujieda does not disclose an optical module as set forth in this new independent claim. The '290 Fujieda discloses and teaches an image input device having an optical means that has specific optical paths for guiding light from a light emitting source to the object being examined, guiding the light to the object, and then guiding the reflected light back to the photo-sensitive elements (the detectors). The preferred embodiment for creating such optical paths to guide the light is a "bundling of a large number of optical fibers." See '290 Fujieda, Col. 4, Lines 63-64. The optical paths for guiding the light both to and from the object being examined is shown in the '290 Fujieda, Figures 7-10. Most importantly, this guiding of light through optical paths is explicitly contained in both of the independent claims:

'290 Fujieda, Claim 1: "... an optical means for guiding light..."  
"... guiding the reflected light from the finger ..."

'290 Fujieda, Claim 11: "... a collected fiber member...for guiding light..."

Thus, it is readily apparent that the '290 Fujieda is limited to an optical module that expressly guides light via optical paths onto the object being examiner, i.e., the fingerprint, and back to the detectors.

Applicant's optical module does not include such a means for guiding light nor does it include the creation of any such optical paths for guiding light. In sharp contrast to the '290 Fujieda, Applicant's optical module causes scattered light to be emitted onto the object being examined, and then the randomly reflected light to return to, and be detected by, the detectors. See Application, Page 17, Lines 9-10; Fig. 7.

Applicant has included this important feature in new independent claim 82 to more distinctly claim the present invention:

Applicant, claim 82: "... illuminating a relief object in contact with a top surface of the optical module with scattered light"

"... said scattered light emitted from said light source layer is randomly reflected in a cavity formed between a valley of the relief object and said detector layer, and one or more of said photosensitive detectors in said detector layer detects said randomly reflected light and generates a photocurrent thereby creating the electronic image of the relief object."

Accordingly, Applicant respectfully asserts that it has rendered the Examiner's possible use of the '290 Fujieda patent as it applies to new claim 82 moot due to the explicit references in the claim to "scattered light" and "randomly reflected light." Applicant believe that new independent claim 82 is in proper condition for allowance.

**Regarding new independent claims 103 and 120,** Applicant respectfully asserts that the above discussion regarding '290 Fujieda is equally applicable. That is, both of these new independent claims contain language directed to the use of scattered light for illuminating a relief object placed on the optical module and the detection and use of randomly reflected light by the detectors, which is vastly different from the disclosure and teachings of '290 Fujieda. The '290 Fujieda patent discloses and is limited to the use of explicitly defined optical paths – one such path for guiding light to the object being examined and a separate such path for guiding the light back to the deflectors. Accordingly, Applicant respectfully asserts that it also has rendered the Examiner's possible use of the '290 Fujieda patent as it applies to new claims 103 and 120 moot, thereby placing these claims in proper condition for allowance.

**Regarding dependent claims 83-102, 104-119, and 121-129,** Applicant respectfully contends that these claims depend either directly or indirectly from independent claims 82, 103, and 120 respectively. It is well established in patent law that allowance of a parent or base claim as patentable, normally results in allowance of a claim dependent upon that patent claim. *See DONALD S. CHISUM, CHISUM ON PATENTS § 7.04[2].* As discussed above, Applicant respectfully submits that new independent claims 82, 103, and 120 are patentably distinct from, and are not disclosed in or anticipated by, the '290 Fujieda patent. Since these independent claims have not been anticipated by the '290 Fujieda patent, dependent claims 83-102, 104-119, and 121-129, which are narrower in scope than the independent claims from which they depend, also would not have been anticipated. Thus, Applicant respectfully submits that these dependent claims are in proper condition for allowance.

## 2. Claim 62

In addition, the Examiner rejected claim 62 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 5,635,723 to Fujieda, et al. ("the '723 Fujieda").

**Regarding claim 62,** Applicant has canceled this claim in light of the new claims, thereby rendering the Examiner's rejection moot.

However, to the extent that the Examiner believes that the '723 Fujieda patent may anticipate the new claims 82-129, Applicant respectfully draws the Examiner's attention to the fact that the '723 Fujieda only discloses an image input apparatus that defines explicit optical paths for guiding light to and from the object being examined. That is, the '723 Fujieda device suffers from the same limitation as the '290 Fujieda device. In '723 Fujieda, the device requires "an optical part for guiding light from the plane light source" and for "guiding light reflected at the finger to the photoelectric converting element." *See '723 Fujieda, Col. 4, Lines 42-45; Claims 1, 3, and 6.* Thus, since Applicant's invention as set forth in independent claims 82, 103, and 120 references scattered light and randomly reflected light, '723 Fujieda does not anticipate Applicant's pending claims.

**C. Rejection under 35 U.S.C. § 103(a)**

The Examiner rejected claims 7-10 under 35 U.S.C. § 103(a) as being unpatentable over the '290 Fujieda as applied to claim 6 above, and further in view of PCT application no. WO 99/12472 to Vachris, et al. ("Vachris"). In particular, the Examiner contends that '290 Fujieda discloses the claimed invention except for the use of specific light emitting elements, which are then disclosed in Vachris.

In response, Applicant has canceled claims 7-10, thereby rendering the Examiner's rejection moot. However, to the extent that the Examiner may apply this rejection under section 103(a) to the new claims, Applicant responds below.

**Regarding new independent claims 82, 103, and 120,** Applicant repeats the discussion above and respectfully asserts that the '290 Fujieda patent does not disclose the claims invention with respect to the use of scattered light and randomly reflected light. The '290 Fujieda is limited to defining specific optical paths wherein light is guided by one path to the object to be examined and guided by a separate second path back to the deflectors. Since independent claims 82, 103, and 120 recite this distinctive feature (of using scattered light and randomly reflected light) over the '290 Fujieda patent, Applicant respectfully asserts that these independent claims are not obvious.

Regarding dependent claims 83-102, 104-119, and 121-129, Applicant respectfully contends that these claims depend either directly or indirectly from independent claims 82, 103, and 120 respectively. It is well established in patent law that allowance of a parent or base claim as patentable, normally results in allowance of a claim dependent upon that patent claim. *See DONALD S. CHISUM, CHISUM ON PATENTS § 7.04[2]; U.S. v. Electronics, Inc., 658 F. Supp. 579, 591, 3 USPQ2d 1571, 1580 (D. Colo. 1987), aff'd in part and rev'd in part, 857 F.2d 788, 8 USPQ2d 1217 (Fed. Cir. 1988), cert. denied, 109 S.Ct. 1954 (1989)(*"Since it would not have been obvious to have made the invention defined in claim 1, ... it would not have been obvious to make the inventions defined in dependent claims 3, 4, and 5"); *In re Fine, 837 F.2d 1071, 1076, 5 USPQ2d 1596, 1600 (Fed Cir. 1988)*(*"Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious."*).

As discussed above, Applicant respectfully submits that new independent claims 82, 103, and 120 are patentably distinguishable and non-obvious over the '290 Fujieda patent, and thus are in proper condition for allowance. Since it would not have been obvious to make the

invention claims in claims 82, 103, and 120, it would not have been obvious to make the invention defined in dependent claims 83-102, 104-119, and 121-129, which are narrower in scope than the independent claims from which they depend. Applicant respectfully submits that these dependent claims, like the independent claims, are in proper condition for allowance.

**D. Small Entity Status**

Pursuant to 37 C.F.R. § 1.27 and MPEP § 509.03, Applicant states that as the assignee of the present application, Security First Corp., it is a small entity as defined by the patent regulations. Accordingly, Applicant respectfully requests that the Examiner make proper note of Applicant's small entity status.

**E. Conclusion**

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in proper condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

  
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